USAID/CAR EXPANDING EFFORTS ON HIV/AIDS PREVENTION IN CENTRAL ASIA

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1. EXECUTIVE SUMMARY

HIV/AIDS presents devastating effects on the health sector and social development and has wide-reaching economic impacts in many countries of the world. The current low level of the HIV epidemic in Central Asian Republics (CAR) and other countries of the former Soviet Union provides a window of opportunity for early targeted interventions to prevent further spread of infection. However, the increase of cumulative incidences of HIV infection, as well as the exponential rate of increase of other sexually transmitted infections, suggest that such a window of opportunity is closing rapidly.

Governmental and non-governmental organizations of the Central Asian republics as well as the international donor community have responded to the early HIV epidemic with pilot interventions. The efforts were concentrated in the areas of HIV epidemic outbreak, such as Temirtau City of Kazakhstan, Yangi-Yul City of Uzbekistan, Osh City of Kyrgyzstan. Despite timeliness, technical feasibility, and political support for such interventions, an effective comprehensive system of prevention of further spread of HIV epidemic is yet to be established in Central Asian region.

The United States Agency for International Development Regional Office for Central Asia (USAID/CAR) recognizes the importance of early prevention and control of the HIV/AIDS epidemic in Central Asia. USAID/CAR has identified a critical need for the establishment of an integrated regional HIV/AIDS prevention program based on current scientific principles of infectious disease control and targeting the underlying causes and effects of HIV infection. The program needs to be both regional and national, community-based and individual-based. It should be coherent, comprehensive, coordinated and multisectoral.

Guided by these , USAID/CAR recommends a major intervention program designed to control and prevent the HIV/AIDS epidemic in Central Asia. Our effort is not intended to replace existing national and international programs. The idea is to complement current strategies, such as harm-reduction programs and youth education, and to present the issue in an integrated and comprehensive manner so that national and international resources could be better utilized and joint efforts better coordinated.

USAID/CAR's expanded effort will combine various theoretically justified and empirically proven intervention strategies, tailoring them to the needs and the environments of each Central Asian country. Each individual intervention even with a relatively small favorable impact can yield net economic benefits to the society. Combined, these interventions may have far stronger impact and may help to effectively combat further spread of an HIV epidemic. Because of its cost-effectiveness and broad impact, a comprehensive and integrated approach is critical, especially now, at the beginning of HIV epidemic in the region.

Interventions will be designed for 1) vulnerable youth (age 15 – 25), and 2) for individuals engaging in high-risk behaviors such as injection drug users (IDU) and sex workers. It is important to note that young people account for a substantial share of known IDU and sex workers. In most cases the strategies for the general youth population and for the high-risk groups are related and overlap. Therefore, these strategies should be envisioned as integrated

components of a comprehensive program to control and prevent further spread of HIV epidemic in Central Asia region. Below is a list of specific interventions considered under the USAID/CAR expanded HIV/AIDS prevention efforts in Central Asia.

For youth:

1.1. Improve information systems on behavioral patterns and trends relevant to the risk of HIV infection: conduct population-based behavior surveys, qualitative assessments, etc;
1.2. Strengthen drug prevention programs through in-school and after-school programs using peer and outreach education.
1.3. Develop a social marketing program for HIV/AIDS prevention to promote behavior change through outreach education about the use of injecting drugs, safer sex; improve access to affordable condoms;
1.4. Design and implement essential services providing access to treatment and prevention of sexually transmitted infections (STIs); promote WHO recommended protocols on STI syndromic case management;

For high-risk groups (IDU, sex workers):

2.1. Establish sentinel surveillance system to generate and maintain a database on HIV prevalence;
2.2. Develop targeted interventions with high risk groups focusing on condom social marketing, awareness raising, peer education, outreach education about the dangers of injecting drugs and sharing needles;
2.3. Design and implement essential STI-related services in innovative ways and ensure access to and quality of essential clinical services for STIs; promote WHO recommended protocols on STI syndromic case management; ensure access to other primary health care services, counseling and treatment.

The program will be managed and coordinated by USAID/CAR. Technical implementation of specific interventions will be carried out by organizations with in various components of HIV/AIDS prevention. USAID/CAR will also be involved in a policy dialogue with the governments of Central Asian countries together with UNAIDS and other international donor organizations involved in HIV/AIDS prevention programs in the region. Figure 1 presents a conceptual framework for USAID/CAR's integrated HIV/AIDS prevention strategy.

This document provides background information on the current status of the HIV epidemic in Central Asia region, discusses USAID/CAR's previous expertise and policy environment in the region and within the USAID system, and outlines and justifies main intervention strategies applicable for vulnerable youth and for high risk groups in Central Asia. The document discusses expected results of such interventions, linkages to other USAID/CAR health programs, and the resource requirements and scientific basis of HIV prevention strategies (medical, social and behavioral aspects).

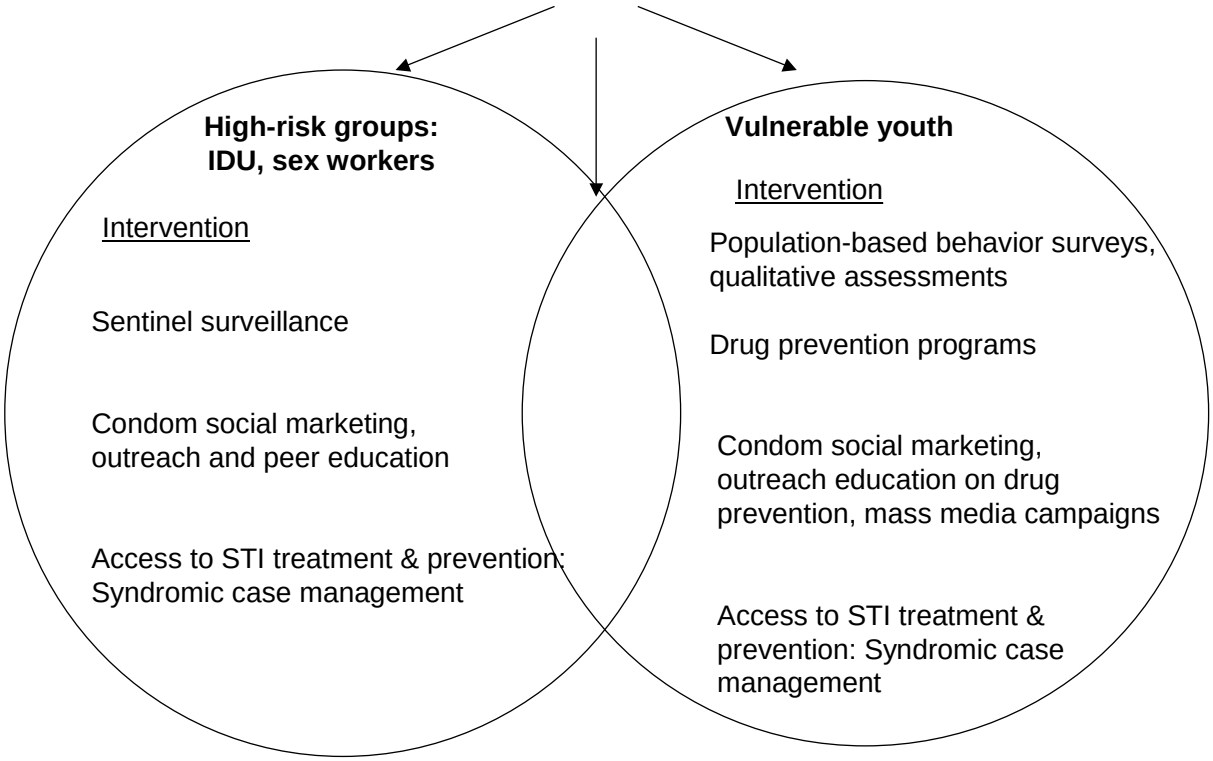

Figure 1. Conceptual framework of USAID/CAR Expanding Effort on HIV/AIDS Prevention

2. INTERVENTION ENVIRONMENT

2.1. Current status of HIV/AIDS epidemic in Central Asia

HIV/AIDS is a pandemic with cases reported from virtually every country. The current estimate of the number of cases of HIV infection among adults worldwide is 36.1 million, of which approximately 1.2 million are children (UNAIDS, 2001). The World Health Organization estimates that approximately 10.7 million adults and 3.2 million children infected with HIV have died since the beginning of the epidemic (Fauci and Lane, 2000).

According to the Guidelines for Second Generation HIV Surveillance, there are three different HIV epidemic states: low-level, concentrated, and generalized (UNAIDS/WHO, 2000). In the low-level epidemics, HIV infection has not increased to significant levels in any sub-population. Recorded infection is mostly confined to people with high-risk behavior (e.g., sex workers, injecting drug users, and homosexual men). In concentrated epidemics, HIV is not well established in the general population, but has spread rapidly in a defined sub-population. In generalized epidemics, HIV is firmly established in the general population and HIV prevalence is consistently more than 1 percent in pregnant women. The situation in Kazakhstan, Uzbekistan and Kyrgyzstan with rapidly escalating HIV infection among IV drug users the HIV outbreak could be characterized as a concentrated HIV epidemic.

Compared with other parts of the world, countries of Eastern Europe and Central Asia have a relatively low prevalence of HIV infection. However, the number of HIV infections in Eastern Europe and Central Asia has grown exponentially from less than 30,000 HIV infections in 1995 to an estimated 700,000 at the end of 2000. There are strong indications that the epidemic is now gaining a foothold in the Central Asia republics. By the end of February 2001, Kazakhstan reported a total of 1,403 cases, Kyrgyzstan 58 cases, Tajikistan 15 cases, Turkmenistan 4 cases, and Uzbekistan 230 cases. However, it is estimated that the true figure is about 10 times higher than what was reported. Because of the lack of proper diagnostic systems and the absence of an efficient surveillance system, official HIV reporting system tends to underestimate the prevalence of HIV.

While prevalence of HIV infection in this Central Asian region remains low, it appears to be gaining momentum and the stage is set for a rapid and widespread epidemic as seen in other CIS countries. Furthermore, the growing number of female injecting drug users (IDU) engaged in commercial sex will help drive the heterosexual epidemic and lead to a greater overlap between the IDU and heterosexual epidemics.

In addition to IDU and sex workers, other groups that are vulnerable to HIV infection are men who have sex with men (MSM), detainees in penal establishments where injecting drug use and homosexual activity are prevalent, and youth. Persons under 25 years of age account for more than 50 percent of the population in the sub-region. Changes in social norms and sexual behavior, unemployment, easy access to drugs, and the absence of youth-friendly services for sexually transmitted infections (STI) all contribute to the spread of HIV and STIs among young people. Youth are particularly affected by the epidemics of HIV, STI and injecting drug use in

the sub-region as evidenced by the fact that the majority of IDU and sex workers in the sub-region are less than 30 years of age.

An alarming factor is the exponential rate of increase of syphilis, gonorrhea, trichomoniasis, and other sexually transmitted infections (STIs), which are known to be important predisposing factors for HIV epidemics. During the last decade the rate of syphilis, which is, a key indicator of an STI epidemic according to WHO, has increased more than 100-fold in many countries of the former Soviet Union. Such a dramatic increase in the rates of sexually transmitted infections enhances the potential for a slower, albeit more generalized heterosexual HIV epidemic than the current picture of the HIV epidemic in Central Asia, which is primarily limited to IDU transmission.

2.2. Knowledge and attitudes toward HIV/AIDS and other STIs

Background information on knowledge and attitudes toward HIV/AIDS and other STIs and the data on sexual behaviors can help to develop targeted programs that focus on those individuals and population groups most in need and most at risk of infection. Data collected during the 1999 Kazakhstan Demographic and Health Survey (1999 KDHS), a probability sample of Kazakhstan's population, showed that the knowledge of HIV/AIDS among women and men in Kazakhstan is nearly universal. A large proportion of women and men in Kazakhstan know one or more valid ways to prevent HIV/AIDS infection, such as using condoms and limiting the number of sex partners (Academy of Preventive Medicine of Kazakhstan and Macro International Inc. 2000).

The survey showed, however, that 36 percent of women and 16 percent of men in age group 15-19 reported that they had not heard of sexually transmitted infections (STIs) other than HIV/AIDS. Forty two percent of women and 32 percent of men in that age group had no knowledge of STI symptoms. The relatively low level of knowledge of STIs among young women and men raises concern because of the potential contribution of young people to future epidemics of HIV/AIDS and other STIs in Kazakhstan.

Since the spread of HIV/AIDS and other STIs depends on unprotected sex with multiple partners, the survey findings of 10 percent of married men reported having extramarital sexual relationships and 22 percent of unmarried men having multiple sex partners further raises concern. The survey also showed that about 81 percent of women and 42 percent of men did not use a condom the last time they had a sexual intercourse with a non-cohabitating partner. Such behaviors carry a high risk of transmission of HIV and other STIs.

There is some evidence to suggest that a similar or even worse situation with knowledge and attitudes toward HIV/AIDS and other STIs exists in other Central Asian republics. In fact, the UNICEF Multiple Indicators Cluster Survey (MICS) conducted in Tadjikistan in 2000 showed that only 20 percent of women have ever heard of AIDS and only 13 percent were aware of at least one means to prevent HIV transmission (UNICEF, 2000).

Current and future epidemic states of HIV/AIDS and other STIs in the region are strongly related to dramatic socioeconomic changes in its population, increased poverty and income inequalities,

labor migration, increased drug abuse and prostitution, and changes in sexual behavior and moral norms.

2.3. National and international responses to the HIV/AIDS epidemic

Facing the threat of further spread of HIV/AIDS, the governmental and non-governmental organizations in all Central Asian republics have responded to the early HIV epidemic with numerous interventions. As part of their efforts the governments have established national AIDS centers with the primary responsibility for carrying out HIV surveillance and developing specific interventions. Efforts were concentrated in the areas of HIV epidemic outbreak, such as Temirtau City of Kazakhstan, Yangi-Yul City of Uzbekistan, Osh City of Kyrgyzstan. One of the key elements of the system was mandatory HIV testing of certain population groups, an approach later proven to be inefficient partially because of the lack of resources and problems with management.

Thus, despite timeliness and support for the HIV/AIDS intervention, the countries of the region failed to develop long-term prevention strategies and to establish comprehensive systems of HIV prevention. In such environment international assistance became essential.

Currently, several international and bilateral organizations are involved in providing assistance with HIV/AIDS prevention in Central Asia. Overall political and programmatic efforts have been coordinated by UNAIDS, which is involved in policy dialogue and development of general intervention guidelines. Several other UN organizations provide assistance with specific intervention (such as promotion of healthy lifestyle, rapid risk assessment, etc.) through some local non-governmental organizations.

Medicins Sans Fontieres (MSF) is implementing harm reduction interventions among sex workers in one pilot area. An extensive social support program including HIV/AIDS awareness, STI treatment, condom distribution and legal rights education is being provided to this risk group. All these efforts are critical in keeping the HIV prevalence low among a group engaging in high-risk behavior and interacting sexually with the general population.

An important role is played in the region's HIV/AIDS prevention efforts by the Soros Foundation/Open Society Institute, which supports methadone treatment and harm reduction programs at needle exchange sites. It is important to mention controversial aspects of the needle exchange programs due to the belief among prominent U.S. lawmakers that needle exchange may encourage drug use. For instance, because of such controversy, USAID is prohibited from providing direct support for such programs[1].

Despite such controversy the overall effectiveness of harm reduction programs is well established. The World Health Organization, CDC, American Medical Association, National Institutes of Health and other organizations advocate a comprehensive package of public health

[1] United States government policy is not to use federal funds for the purchase or distribution of injection equipment (needles and syringes) for the purpose of injecting illegal drugs. Therefore USAID funds may not be used to purchase the commodities to be used in either a needle/syringe exchange program or research programs on needle/syringe exchange.

interventions to prevent the spread of HIV, including needle-exchange programs and substitution treatment for opiate addiction.

Existing needle exchange sites offer an important opportunity to supplement harm-reduction programs with other public health initiatives and ancillary services linked to the NEP sites, as well as school- and community-based interventions to prevent initiation of drug use and other risky behaviors. Such an approach would require a coordinated effort of other organizations and agencies with technical expertise in these areas.

To bring together all the national, regional and international HIV/AIDS prevention stakeholders, a regional conference was organized in Almaty, Kazakhstan on May 16 –18, 2001, which launched HIV/AIDS/STI Central Asia Initiative. The conference was co-sponsored by USAID/CAR, UNICEF and UNAIDS. USAID played an important role in designing the initiative and producing the conference materials. The objectives of the conference and the initiative were:

- To establish consensus among governments, NGOs, UNAIDS co-sponsors, and other donor organizations, around priority areas for action and best practices to control HIV in the sub-region;
- To develop a framework for an expanded sub-regional HIV/AIDS/STI response that supports National HIV/AIDS/STI Strategic Plans (or their equivalent) as well as inter-country projects that provide added value to country-level programs or address cross-border issues that are best dealt with at a sub-regional level;
- To identify and mobilize the technical and financial resources required in order to implement the expanded response at the country and inter-country levels.
- To develop a mechanism for coordination of the international response at the sub-regional level.
- To strengthen existing mechanisms for the exchange and dissemination of information, technical expertise, experience, and best practices at the sub-regional and regional levels.

USAID/CAR envisions this conference and initiative as an important step towards the development of comprehensive regional HIV/AIDS prevention strategy.

3. USAID/CAR PREVIOUS EXPERIENCE AND POLICY ENVIRONMENT

USAID/CAR has been involved in HIV/AIDS prevention programs in Central Asia through the support of education programs, promotion of healthy lifestyle, and other activities. It is important to mention the following areas of USAID/CAR's contribution to the region's HIV/AIDS prevention efforts to date:

- Population-based assessment of HIV/AIDS/STI knowledge and attitudes carried out in conjunction with the 1999 Kazakhstan Demographic and Health Survey (DHS) and the 2000 Turkmenistan DHS funded by the USAID/CAR;
- Funding for CDC/CAR's work on HIV sentinel surveillance in the Temirtau area. This study yielded important gender and behavioral differentials in HIV status of the NEP clients;
- Support for the ZdravPlus efforts to promote STI syndromic case management through primary health care institutions. This is an effective and efficient strategy since the risk reduction for HIV transmission could be accomplished through treatment of STIs.
- Co-sponsoring of the Central Asian Initiative Conference on the Prevention of HIV/AIDS/STIs. This event brought together for the first time governmental, non-governmental, and multi-/bilateral donors to strategize regionally on how to prevent an epidemic in the CAR.
- Central Asian Condom Social Marketing (CSM) Assessment (March 2001) and Workshop (June 2001). These events were implemented to assess the feasibility and receptiveness to the state-of-the-art strategies in CSM here in the CAR. The goal of CSM is to provide an appealing, affordable, high-quality condom to the communities in Central Asia, especially those "high-risk" subpopulations.
- Uzbekistan/Osh, Kyrgyzstan HIV/AIDS Study Tour (April 2001). This study tour exposed health professionals from Uzbekistan (Tashkent, Yangi-Yul, and Ferghana) to the model outreach activities for IDU and sex workers in Osh, Kyrgyzstan.
- CAR/Vilnius Harm Reduction Study Tour (April 2001). This study tour exposed government officials of Kazakhstan, Kyrgystan, Tajikistan, Turkmenistan, and Uzbekistan to the model Harm Reduction activities being implemented in Vilnius, Lithuania.

USAID/CAR continues its support of the strategies concerning prevention of the HIV/AIDS epidemic in Central Asia. Our efforts are part of a USAID global effort to help meet international goals set by the global HIV/AIDS community – "reducing prevalence in high-prevalence countries, maintaining prevalence below one percent in low prevalence countries, and ensuring care for people infected with HIV and children affected by AIDS".

The seriousness of USAID's commitment to HIV/AIDS prevention was demonstrated in USAID Administrator's June 1 2001 worldwide message. In that address, Administrator Natsios indicated: "…in countries where the virus is not yet well established, missions need to be cognizant of risk factors and should take steps to prevent the spread of the disease".

USAID/CAR's strategic objective in health is to increase utilization of quality primary health care for select populations. The quality primary health care approach focuses on improving the efficiency of resource use, including increased funding for primary health care; improves quality; re-defines patients rights and responsibilities; and creates a favorable legal and policy framework. "Select populations" refers both to those residing in priority target regions of each country and to certain critical high-risk groups. Particular attention has been devoted to populations deemed vulnerable to tuberculosis (TB), hepatitis, HIV/AIDS and sexually transmitted infections (STIs).

Guided with these goals and strategic objectives, USAID/CAR has identified a critical need for an integrated regional HIV/AIDS prevention program in Central Asia with focus on vulnerable youth and high-risk groups, such as IDU and sex workers. The program will be based on current scientific principles of infectious disease control and will reflect the multi-dimensional nature of underlying causes and impacts of HIV infection.

In its effort USAID/CAR is guided by the existing rules and "boundaries" for the use of funds according to United States law. For example, as mentioned above, there are restrictions on USAID's involvement in harm reduction programs since the United States government policy is not to use federal funds for the purchase or distribution of injection equipment (needles and syringes) for the purpose of injecting illegal drugs. Therefore, as stated in USAID's Guidelines for HIV-AIDS Prevention Programs for Injecting Drug Users, "USAID funds may not be used to purchase the commodities to be used in either a needle/syringe exchange program or research programs on needle/syringe exchange. However, many other elements of a harm reduction approach to IDU and HIV-AIDS reduction are acceptable in a USAID-funded program".

The guidelines permit use of USAID funds to support the overall management, operational, and program costs and certain components of a comprehensive harm reduction program, including but not limited to community outreach; education about the risks of injecting drugs and sharing needles; referrals to health care and drug treatment services for IDU; counseling and testing; condom purchase and distribution; and safer sex education.

4. RATIONALE FOR STRATEGIC CHOICES

4.1. The target groups: vulnerable youth and high-risk groups

HIV/AIDS epidemics can only be controlled if attention is given to those populations at greatest risk and with highest prevalence. In low prevalence and concentrated HIV epidemics, which is the case in Central Asia, special emphasis needs to be placed on targeted interventions focused on vulnerable youth and high-risk groups, such as IDU and sex workers. There is evidence that there are very effective (policy and program) interventions that can prevent, slow down, stop and even reverse HIV/AIDS epidemic among such target groups. For this reason, the overall USAID/CAR HIV/AIDS prevention program will target: 1) vulnerable youth (age 15 – 25), and 2) individuals who engage in high-risk behaviors such as injecting drug users and commercial sex workers.

Although targeting vulnerable youth and high-risk groups should be given priority, there is also a need to develop population-specific interventions and adapt mainstream policies and interventions for specific settings. An effective HIV/AIDS prevention strategy includes a balance between targeted interventions to contain HIV epidemics within already affected populations while at the same time supporting a systematic response that protects the population as a whole.

4.2. Information systems: behavior surveys and sentinel surveillance

Prior to designing an HIV/AIDS prevention program, each intervention needs to be considered and assessed at various levels: regional, national, community and individual. In addition, implementation of each HIV prevention strategy has to be carefully monitored and evaluated to ensure that the goals of intervention are met. Therefore, establishment and maintenance of effective information systems are essential.

> *Objective 1.1. for vulnerable youth: Improve information systems on behavioral patterns and trends relevant to the risk of HIV infection: conduct population-based behavior surveys, qualitative assessments, etc*

The assessment of needs helps to determine cultural context as well as many other important factors, such as age-sex structure of population, educational level, ethnic composition, as well as values, beliefs, norms, etc. To some extent such baseline information is available from USAID-funded Demographic and Health Surveys as well as from UNICEF funded MICS surveys. The program implementers should be encouraged to conduct in-depth analyses of the results of such surveys.

Also, some additional baseline information should be obtained from specially designed sexual behavior surveys, knowledge, attitude and practices surveys (KAP), qualitative assessments, and ethnographic studies. Collecting such information at the community level may yield important conclusions. For example, some quantitative and qualitative assessments may uncover a gap in HIV educational services. Individuals receiving outreach services within the community may have disparate specific needs: some of them may need assistance in recognizing their risk for

HIV infection, while others may recognize their risk but may need assistance obtaining risk-reduction counseling services.

Monitoring and evaluation is a multi-step process that includes collecting baseline information, mid-course assessment and final assessment. One of the outcomes could be a situation when the behavioral and health outcomes are not approached. This could also be determined by carrying out quantitative and qualitative assessments. Then either outcome objectives need to be re-checked for reasonableness, or mid-course corrections should be made regarding the strategy implementation to reach its objectives.

> *<u>Objective 2.1.</u> for high-risk groups: Establish sentinel surveillance system to generate and maintain a database on HIV prevalence;*

An important component of an information system related to HIV/AIDS prevention is a Sentinel Surveillance System, which collects information on HIV prevalence and some behavioral aspects. It is traditionally based on measurement of levels of HIV infection in pregnant women and in patients with sexually transmitted diseases, groups from whom blood is usually drawn for purposes other than HIV testing. This system is used throughout the world and continues to be a major source of information on HIV prevalence.

Establishment of HIV sentinel surveillance system concentrated in high-risk groups is the only reasonable way to generate adequate information about HIV prevalence in Central Asia since the majority of currently diagnosed cases of HIV infection in this region are centered to IDU and sex workers. Covering IDU and sex workers as sentinel population will present a significant challenge. Due to the nature of drug injecting behavior and the difficulties often encountered in identifying IDU and sex workers. Drug injectors, for example, are known to have different rates of contact with institutionalized programs. Therefore, when designing sentinel surveillance system linked to the services such as needle exchange programs, all categories of the respondents (in-service and out-of-service) have to be considered for recruitment. The out-of-service respondents may possibly be recruited from their day-to-day environments, such as “shooting galleries”. Some existing instruments, such as The WHO’s Rapid Assessment and Response methodology, provides an opportunity for some qualitative monitoring of the situation.

Establishment of a sentinel surveillance system would be helpful in tracking the geographical spread of the infection and in modeling and projecting the impact of the epidemic. It will also help to better understand the corridors of HIV transmission and how these relate to HIV prevalence in the countries inside and outside the Central Asia region.

4.3. Condom social marketing and adoption of healthy behaviors

> *Objective 1.2 for vulnerable youth: Develop a social marketing program for HIV/AIDS prevention to emphasize drug prevention and promote behavior to avoid HIV infection, i.e., safer sex; improve access to affordable condoms*
>
> *Objective 2.2 for high-risk groups: Develop targeted interventions with high risk groups focusing on condom social marketing, awareness raising, peer education, outreach education about the dangers of injecting drugs and sharing needles*

Condom social marketing.

The strategy behind the social marketing of condoms is to maximize the availability of at least one high-quality, affordably priced condom for the identified risk groups as an essential component of the regional HIV/AIDS prevention program.

To support this strategy, USAID will support interventions on both the "supply" and "demand" sides of overcoming condom-related barriers. By working to ensure a steady supply of at least one appealing, affordable condom in outlets convenient to the identified risk groups, the "supply" side of the commodity equation is addressed. Simultaneously, the program will focus on increasing "demand" through formative research, mass media campaigns, and outreach to targeted communities. Using baseline condom availability, pricing and distribution data, the program would choose a condom brand, pricing structures and distribution strategies to meet the requirements of the targeted groups.

Since the identification and "mapping" of high-risk groups is likely to be difficult in the beginning, the program's first aims would be to establish trust with these high-risk groups to facilitate the necessary formative research. Once sufficient information is known concerning the social patterns of the identified risk groups, the program would set out to pioneer "non-traditional" distribution of high quality, affordable condoms to areas known to be frequented by these groups, such as meeting points for sex workers and their clients, gathering points for IDU, and "hang-out" locations for out-of-school youth. Such places might include bars, discos, billiard halls, public parks, and transportation hubs. Distribution in prisons can also be explored. Aside from these targeted distribution efforts, distribution will also work through existing commercial distribution networks, including but not limited to pharmaceutical and non-pharmaceutical outlets, to ensure the widest distribution network possible.

Adoption of healthy behaviors

One of the goals of HIV/AIDS prevention program is to establish a new social norm of healthy behavior as a basis for long-term prevention of HIV. This could be accomplished by:

- Promoting knowledge and awareness about HIV/AIDS with emphasis on risky behaviors, such as unsafe sex and injection drug use as underlying causes of epidemic;
- Promoting balanced mass media messages and public discussion of healthy behaviors among all population groups;

- Promoting education on sexual norms and practices especially for youth population, including outreach and peer education.

The focus of this program component is on addressing personal knowledge, risk assessment and peer/partner support barriers to HIV/AIDS prevention behavior. Using formative audience research, the program would design a strategic communications plan for each country. This plan would set forth a strategy for the coordinated use of peer outreach interventions and/or mass media to achieve behavioral change in the identified target audiences. It would include a situational analysis for each target group and outline specific behavior change strategies for overcoming key barriers to healthy behavior. It would include details about the principal messages for each target audience and how these messages will be delivered. The plan would be developed with the active involvement of target audiences themselves. Close consultations with NGO partners, public health officials and media representatives would assure the cultural appropriateness, feasibility and effectiveness of the planned responses. Finally, the plan would set up a specific timetable for the implementation and evaluation of these activities.

4.4. Access to treatment and prevention of sexually transmitted infections (STIs); promotion of STI syndromic case management

The control of sexually transmitted infections (STIs) is an important intervention to reduce the sexual transmission of HIV. STIs increase the risk of HIV acquisition and transmission. Individuals infected with an STI are more likely to acquire HIV infection when exposed, and individuals co-infected with HIV and another STI are more likely to transmit HIV to their sex partners.

Interventions designed to increase awareness of HIV or other STIs and to reduce high-risk sexual behavior (such as social marketing of condoms) are likely to have an impact on prevention of both HIV infection and other STIs. This could be accomplished by achieving a greater access to STI-related services and improvement of management of STIs through extensive training of primary health workers and promoting health-seeking behavior for STIs. Therefore, programs for HIV and STI prevention need to be coordinated to maximize the effectiveness and efficiency of both intervention efforts.

> *Objective 1.3. for vulnerable youth: Design and implement essential services providing access to treatment and prevention of sexually transmitted infections (STIs); promote WHO recommended protocols on STI syndromic case management*

Technical assistance in this area is covered by USAID's ZdravPlus project. The efforts are concentrated in USAID/CAR primary health care restructuring pilot sites. There is a possibility of additional funding from the World Bank that may enhance the ongoing ZdravPlus activities in the region.

> *Objective 2.3. for high-risk groups: Design and implement essential STI-related services in innovative ways and ensure access to and quality of essential clinical services for*

STIs; promote WHO recommended protocols on STI syndromic case management; ensure access to other primary health care services, counseling and treatment

USAID will assist in efforts that expand and improve STI services to groups at high risk of HIV.

4.5. Cross-cutting issues of intervention: Multidimensional approach

Effective strategies to address such complex situations as HIV/AIDS epidemic require multi-sectoral action and multi-component interventions tailored to the specific contexts and populations. Whereas health is not the only sector involved, health plays the key role in HIV/AIDS prevention strategy.

The USAID/CAR HIV/AIDS prevention program is designed to reflect four main requirements: to be coherent, comprehensive, coordinated and multi-sectoral. The coherent requirement means that the components of the strategy are logically consistent and synergistic. Comprehensiveness means full utilization of all types of relevant approaches and effective interventions. Coordination ensures that the components of the strategy relate to each other in order to maximize efficiency and effectiveness. Multi-sectoral approach considers involvement of both public and private sectors in health, education, information, judiciary sector, etc; participation of health professionals from various disciplines as well as non-health professionals; partnerships among various stakeholders in the community.

Each intervention within the overall USAID/CAR HIV/AIDS prevention program should be regional-, national-, community- and individually- based. HIV does not recognize geographic and political borders and may threat health of populations of all nations of the region. Therefore, the regionally coordinated approach is essential. Many interventions work most effectively on the national levels. It requires involvement of public and private sectors Community-based HIV prevention programs are multidimensional. First, they have to be developed and implemented concurrently with the national and regional strategies. Secondly, they have to be based on local cultural norms, socio-economic characteristics, and ensure adequate access to the health care services, education and information systems. Many underlying factors that contribute to the HIV and other STIs epidemic, such as lack of awareness, imbalanced message regarding sexual behavior, are most effectively addressed through community-based interventions. On the other hand, the community-based programs have to consider individual responsibility for seeking health information, reducing high-risk behaviors, and reducing likelihood of infecting partners.

4.6. Scientific principles of intervention

USAID/CAR's HIV/AIDS prevention efforts are based on scientific principles of infectious disease prevention: a) preventing exposure to infection, b) preventing acquisition of infection when exposed and c) preventing transmission to others once infected. The biomedical principles of HIV prevention are presented in Appendix A. Below is a brief description of some definitions.

Exposure could be decreased by delaying sexual intercourse, by reducing the prevalence of high risk behaviors, such as unsafe sex, injection drug use, etc. Probability of acquisition of HIV and other STIs during sexual intercourse could be decreased by promoting the use of barrier methods, especially condoms. Duration of STI infection, which is important HIV predisposing factor conducive to HIV transmission to others, could be decreased by improving knowledge and promoting awareness of HIV and other STIs and their consequences; promoting utilization of health services for symptoms of STIs, encouraging early detection and effective treatment; and ensuring access to essential clinical services.

Design and implementation of HIV prevention programs should consider factors and phases of behavioral changes. Modern theories and models of behavioral changes are presented in Appendix B. It is important to emphasize that the responsibility for behavioral changes have to be shared between the community and individuals and functions have to be tailored to the local community environment.

5. EXPECTED RESULTS RELATED TO USAID/CAR STRATEGIC OBJECTIVE

USAID/CAR Strategic Objective 3.2., *Increased Utilization of Quality Primary Health Care for Select Populations*, builds upon USAID comparative advantages and successes in the most critical health issues in Central Asia. The quality primary health care approach focuses on improving the efficiency of resource use, including increased funding for primary health care; improves quality; re-defines patients rights and responsibilities; and creates a favorable legal and policy framework. "Select populations" refers both to those residing in priority target regions of each country, and to certain critical high-risk groups. Particular attention in the strategy has been devoted to populations deemed vulnerable to TB, hepatitis, HIV/AIDS and sexually transmitted infections.

USAID/CAR defines four intermediate results that are critical to the achievement of this objective:

- Select populations are better informed about personal health care rights and responsibilities
- Improved quality of health care including infectious diseases and maternal and child health
- Improved use of health care resources for primary health care
- Improved legislative, regulatory and policy framework

USAID/CAR's expanding effort on HIV/AIDS is an important component of this strategic objective to increase utilization of quality primary health care. Efforts in HIV/AIDS prevention will have strong impact on at least three intermediate results, particularly, on improvement of information about personal health care rights and responsibilities, improvement of quality health care, and improvement of legislative, regulatory and policy framework (figure 2).

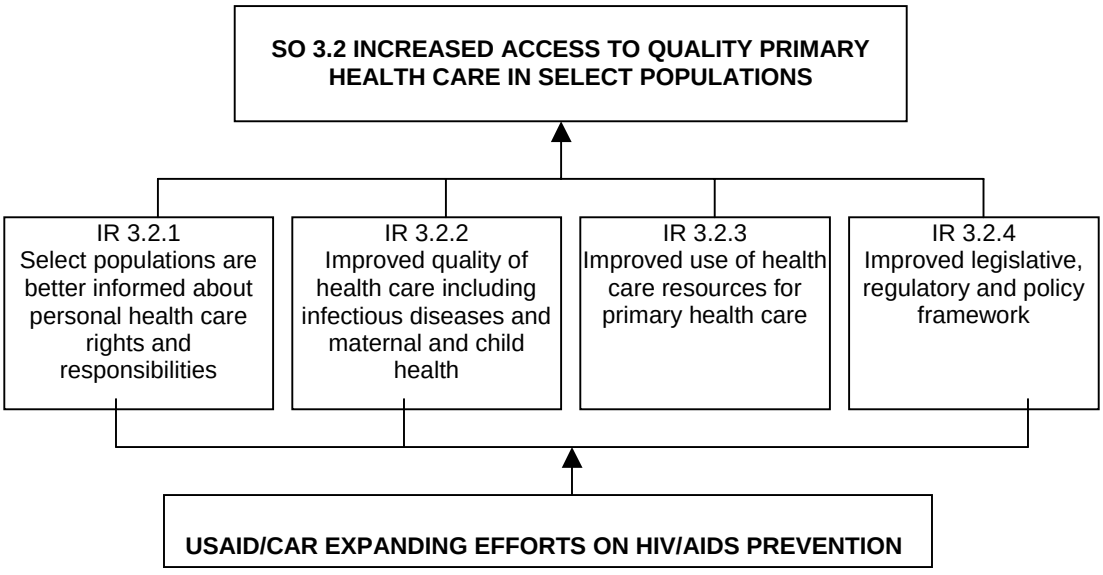

Figure 2. Linkages of USAID/CAR expanded efforts on HIV/AIDS prevention to its strategic objective and intermediate results on health

As part of its strategic objective, USAID/CAR has concentrated attention on the management of laboratories, surveillance systems and pharmaceutical supplies. Introduction and support for HIV/AIDS/STI sentinel surveillance system is an important part of these activities. It is expected that after initial introduction in a few pilot sites sentinel surveillance system will be established in several other major areas of HIV/AIDS outbreak in Central Asia.

An important result of the HIV/AIDS prevention program would be establishment of a new social norm of healthy behavior as a basis for long-term prevention of HIV, which is relevant to the goal of strengthening personal responsibilities for health.

The HIV/AIDS prevention program will train and involve local NGOs and community groups in the design and implementation of HIV/AIDS prevention programs. This would include training and participation in community mobilization, communications design and development, etc. Such activity would allow midterm and long-term capacity-building and contribute to a sustainable NGO-based HIV/AIDS prevention program.

6. POTENTIAL STAKEHOLDERS AND REGIONAL AND GLOBAL LINKAGES

Potential stakeholders in HIV prevention activities in five Central Asian republics (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) are governmental and non-governmental organizations (NGOs), including policymakers; ministries of health, education, labor, social security, and information; national AIDS centers; medical research and education organizations; hospitals and clinical laboratories; businesses and organized labor; mass media; health programs for high-risk groups; and school-based programs.

There are several non-governmental organizations in the region currently involved in HIV risk-assessment and prevention activities. Some of them are funded by UNAIDS and other UN agencies. Traditionally in the countries of the former Soviet Union, the national governments led the efforts and assumed most of the responsibility for epidemic control and prevention. Under the democratization process it is important that the private sector assumes more responsibility and leadership.

International and bilateral organizations involved in HIV prevention and control in the region besides USAID include: 1) Joint United Nations Program on HIV/AIDS (UNAIDS); 2) United Nations Children's Fund (UNICEF), 3) United Nations Development Program (UNDP), 4) United Nations Population Fund (UNFPA), 5) United Nations Office for Drug Control and Crime Prevention (UNODCCP), 6) the United Nations Educational, Scientific and Cultural Organization (UNESCO), 7) World Health Organizations (WHO), 8) the World Bank, 9) UK Department of International Development, 10) Open Society Institute (Soros Foundation) 11) MSF and others. Coordination of their activities is an important component of the regional HIV prevention program.

Given the heterogeneity of these national and international organizations and a variety of sources of funding, developing leadership may present a challenge. Bringing these disparate organizations together is one of the objectives of the USAID/CAR expanding efforts on HIV/AIDS prevention. One of the ways to consolidate the HIV/AIDS prevention efforts in the region would be to establish an Infectious Disease Network, which would focus on the control and prevention of HIV/AIDS:

- To promote HIV/AIDS prevention programs in the region by facilitating collaborative efforts and partnerships among countries.
- To improve knowledge of state-of-the-art HIV prevention interventions by exchanging information through publications, meetings, country study tours, and conferences.
- To provide logistics and communication support for such exchanges and to make them technically feasible.
- To advance policy dialogue on HIV/AIDS prevention by providing a medium through which non-governmental public health organizations can work effectively with national and international health agencies.

Establishment of the Infectious Disease Network could help to initiate a constructive inter-country exchange of resources and expertise to strengthen the whole region and facilitate international efforts to control and prevent HIV/AIDS.

The USAID/CAR expanded HIV/AIDS prevention efforts must be seen not only as complementary to the other regional programs, they should be envisioned as part of the global efforts for HIV/AIDS prevention and control. There should be synergies not only between the regional and national plans, but also with other global efforts such as those at the World Health Organization, UNAIDS programs and USAID/SO4 strategic objectives. It is expected that each program implementer will interact with other regional and international partners for a constructive global dialogue.

APPENDIX A. BIOMEDICAL ASPECTS OF HIV/AIDS PREVENTION

Prevention of HIV infection must be based on strategies that interrupt sexual, blood-borne, and perinatal transmission of the virus. Such strategies must be grounded in understanding of the epidemiology of HIV infection and knowledge of the science of human behavior. These science-based strategies are the foundation for the design, implementation, and evaluation of prevention efforts. The most important biomedical aspects of interventions relevant to the HIV/AIDS epidemic in Central Asia are: a) prevention of sexual transmission; b) prevention and treatment of injecting drug use; c) prevention of transmission through blood transfusion; and d) prevention of perinatal transmission.

1. Prevention of Sexual Transmission

Strategies for the prevention of sexual transmission of HIV have focused on reducing unsafe sexual behavior (by promoting sexual abstinence or decreasing the number of partners), encouraging condom use, and treating sexually transmitted infections.

1.1.Promotion of condom use

Consistent use of latex condoms has been shown to be effective for the prevention of HIV transmission at both individual and population levels. Multiple epidemiological studies of heterosexual couples in which one partner is HIV positive and the other is HIV negative indicate that the correct and consistent use of condoms can significantly reduce transmission of HIV and other sexually transmitted diseases.

1.2. Changes in sexual behavior

Changes in sexual behavior by heterosexual men and women at risk for HIV infection are important means of HIV prevention. Prevention of heterosexually acquired HIV will require efforts to prevent HIV transmission associated with drug use, especially injecting drug use, as well as the prevention and treatment of other sexually transmitted diseases that facilitate HIV transmission.

1.3. Partner notification

Partner notification is another mechanism to assist in the prevention of sexual transmission of HIV. Even though many HIV-infected individuals will cooperate in notifying at least some of their sex partners, others do not. Although the effectiveness of contact tracing and partner notification has been hotly debated, it is probably an effective prevention strategy, particularly when targeted to primary HIV infection.

1.4. Control of sexually transmitted infections

The control of sexually transmitted infections (STIs) is also an important intervention to reduce the sexual transmission of HIV. STIs increase the risk of HIV acquisition and transmission. Individuals infected with an STI are more likely to acquire HIV infection when exposed, and

individuals co-infected with HIV and another STI are more likely to transmit HIV to their sex partners.

Interventions designed to increase awareness of HIV infection or other STIs and to reduce high-risk sexual behavior (such as social marketing of condoms) are likely to have an impact on prevention of both HIV infection and other STIs. This could be accomplished by achieving greater access to STI-related services and improvement of management of STIs through extensive training of primary health workers and promoting health-seeking behavior for STIs. Therefore, programs for HIV and STI prevention need to be coordinated to maximize the effectiveness and efficiency of both intervention efforts.

2. Prevention and treatment of injecting drug use

Prevention and treatment of injecting drug use are critical for reducing HIV transmission among injecting drug users. Several studies have documented that significantly lower rates of drug use and related risk behavior are practiced by injecting drug users who are in treatment. However, the majority of active drug users in Central Asia are not in treatment because of either choice or the unavailability of treatment. This situation has necessitated the development of a creative blend of educational and alternative therapeutic approaches, including the removal of restrictions on the purchase of needles and syringes, needle and syringe exchange programs, proper use of bleach for disinfection of drug injection equipment, and interim methadone maintenance programs.

Studies have shown that social change processes, particularly peer influence, are important in HIV risk reduction among injecting drug users.

3. Prevention of transmission through blood transfusion

The first report of transfusion-associated AIDS was in 1982. In 1983, blood banks initiated the voluntary self-exclusion of donors with risks for HIV infection. In 1985, the first serologic assays for HIV antibody became available, and the use of these HIV serologic tests to screen blood donations dramatically decreased the risk of transfusion-associated HIV transmission. (Lackritz et al, 1995). Serologic identification of repeat donors with HIV infection, screening of blood for hepatitis C, and reductions in the number of transfusions performed have also lowered transmission risks. In addition to HIV antibody testing of plasma donors and deferral procedures for donors with risks for HIV infection, the implementation of viral inactivation procedures such as heat and solvent/detergent treatments can significantly reduce~~r~~ the risk of HIV transmission through pooled plasma products.

4. Prevention of perinatal transmission of HIV

Primary prevention of perinatally acquired HIV infection must center on routine, voluntary counseling and HIV antibody testing and on the availability of reproductive health services for women of reproductive age. Because a substantial proportion of women may not initially acknowledge high-risk behavior or know the infection status of their partners, routine HIV testing and counseling must be considered a standard of care, especially in areas of high

prevalence, such as Temirtau in Kazakhstan and Yangi-Yul in Uzbekistan. Such approach may not be reserved only for women with self-reported risk histories.

Prevention of postnatal transmission of HIV infection through breast-feeding must take into account the likelihood of competing risks for morbidity and mortality associated with feeding alternatives. The U.S. CDC recommended that HIV-seropositive women not breast-feed their infants. This recommendation was intended for mothers in the United States, where alternative, safe, and nutritious substitute feeding methods are readily available. In 1992, the WHO and the United Nations International Children's Emergency Fund developed a consensus statement on HIV transmission related to breast-feeding and stated that “In settings where the primary causes of infant deaths are infectious diseases and malnutrition, breastfeeding should remain the standard advice to pregnant women, including those who are HIV-infected.” (World Health Organization, 1992). By 1996, UNAIDS published a revised statement that supported breast-feeding in all populations, irrespective of HIV infection rates, but recommended counseling for women about the risks of HIV transmission through breast-feeding (UNAIDS, 1996).

When children born to women living with HIV can be ensured uninterrupted access to nutritionally adequate breast-milk substitutes that are safely prepared and fed to them, they are at less risk of illness and death if they are not breast-fed. However, when these conditions are not fulfilled, in particular in an environment where infectious diseases and malnutrition are the primary causes of death during infancy, artificial feeding substantially increases children's risk of illness and death.

APPENDIX B. SOCIAL AND BEHAVIORAL BASIS OF HIV/AIDS PREVENTION

There are three different types of relatively successful HIV prevention interventions which are based on behavioral and social science theory and practice: 1) cognitively-based one-on-one interventions; 2) community-level interventions and 3) community mobilization (Kelly et al, 1993). It has been suggested that conceptually-based, group-specific programs focusing on information, motivation, and behavioral skills are the most successful interventions in changing high risk behavior (Fisher et al 1992).

The U.S. National Commission on AIDS behavioral and social sciences report described eight factors needed for a person to reduce his/her risk of HIV infection (National Commission on AIDS, 1993):

1) strong intention to implement the risk-reduction/avoiding behavior;
2) no environmental barriers blocking the behavioral change;
3) necessary skills to execute the behavioral change;
4) perceived "pros" of the new behavior greater than the "cons";
5) perception that peers encourage the behavioral change;
6) consistency of one's self-image with the new behavior;
7) perception that the new behavior is positively reinforced;
8) belief that one can actually perform the new behavior.

These factors have been empirically confirmed as important for averting or reducing HIV-related risk behaviors (National Commission on AIDS, 1993).

Many of these behavioral factors are sequential and dynamic. According to Prochaska's stage of behavioral change model, a person goes through various phases or cycles of behavioral transformation: 1) pre-contemplation (unaware of own risk or does not intend to change the risk behavior "problem" in the near future); 2) contemplation (seriously considers overcoming the "problem", but makes no commitment toward action; 3) preparation (intends to take effective action in the very near future); 4) action (modifies behavior, environment, or experience to overcome the "problem"); and 5) maintenance (stabilizes the new behavior and avoids relapsing to the "problem" (Prochaska et al, 1992, Holtgrave et al, 1995).

Design and implementation of HIV prevention programs should consider these factors and phases of behavioral changes. Responsibilities for such behavioral changes have to be shared between the community and individuals and functions have to be tailored to the local community environment. Therefore community-level interventions and community mobilization should be envisioned as integral parts of individual behavioral change cycles.

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